In the Drawings:

Please add to the application the enclosed single New Sheet of drawings bearing a new Fig. 3. New Fig. 3 merely schematically shows the software and control device recited in original claim 19 and the vehicle recited in original claim 20, as further supported in the original written description, for example at page 1 line 8 to page 2 line 20, page 6 lines 6 to 15, so that Fig. 3 does not introduce any new matter. Because the vehicle, the automatic gearbox, and the control device can be generally conventional, it is not necessary to show further detail than merely a generic schematic "box". Entry of the New Sheet bearing new Fig. 3 is respectfully requested.

[RESPONSE CONTINUES ON NEXT PAGE]

REMARKS:

1) The Examiner's attention is directed to the enclosed Information Disclosure Statement. Please consider the IDS and the cited references, and return an initialed, signed and dated acknowledgment copy of the IDS Form PTO-1449 of November 24, 2008.

2) The Examiner's attention is also directed to the enclosed Drawing Transmittal accompanied by one New Sheet of drawings with a new Fig. 3 to be added to the application. Please see the above Drawing Amendment section of this Response. Please approve and enter the New Sheet, and indicate the acceptance of the drawings in the next official communication.

3) According to the PCT procedures, the original specification of this application was a direct literal translation of the foreign language text of the corresponding PCT International application. The specification has now been amended in an editorial and formal manner to better comply with typical US application format (e.g. with section headings and without references to specific claim numbers), and to clarify a few portions of the translated text. The clarifications are all supported by the context of the original disclosure, and do not introduce any new matter. Also, the specification has been amended to refer to the new Fig. 3 that is to be added to the drawings by the present amendment. The clarifications in the first (partial) paragraph on page 9 of the original specification are also further supported by the

disclosure of Fig. 2 of the drawings. As can be seen in Fig. 2 and as disclosed at page 9 lines 1 to 4 of the written description, each "virtual" transmission ratio range (e.g. 13, 15, 17) has a linear transmission ratio characteristic, but if the line segment representing this linear characteristic is extended, the extension thereof does not pass through the origin of the diagram representing the motor rotational speed (n) versus the vehicle speed (v). Instead, as a mathematical characterization, it can be seen that each line segment representing the respective linear transmission ratio characteristic is defined by an equation in the form $n = mv + b$, wherein n is the motor rotational speed, v is the vehicle driving speed, m represents the slope or virtual transmission ratio of the linear transmission characteristic, and b represents the virtual motor rotational speed offset as a positive or negative offset value of the motor rotational speed if the vehicle driving speed would be zero in this linear transmission ratio characteristic. This can be readily understood from original drawing Fig. 2, and thus does not introduce any new matter. Entry of the specification amendments is respectfully requested.

4) Further according to the PCT procedures, the original claims of this application were a direct literal translation of the corresponding foreign language claims of the PCT International application, except for omitting multiple dependencies. The original claims have now all been canceled, and new claims 21 to 34 have been introduced. Generally, claims 21 to 31 are based on formal revisions of the original claims 1 to 4 and 13 to 20,

while claims 32 to 34 have been drafted anew "from the ground up" as a fresh approach at defining inventive subject matter with a slightly different claim style, format and terminology in comparison to the original literally translated PCT claims. The new claims are supported by the original disclosure as shown in the following table, and do not introduce any new matter. Entry and consideration thereof are respectfully requested.

new claims	21	22	23	24	25	26	27
original support	Cl 1, 3; Fig 2; P 8 L 32 - P 9 L 4	Cl 4	Cl 13; Fig 2; P 4 L 22-28	Cl 14	Cl 14	Cl 15	Cl 16

new claims	28	29	30	31	32	33	34
original support	Cl 17	Cl 18	Cl 19; P 6 L 6-12	Cl 20	Cl 1; Fig. 2; P 1 L 8-31; P 2 L 25-28; P 8 L 32 - P 9 L 4	Fig. 2; P 8 L 32 - P 9 L 4	Cl. 1; Fig. 2; P 1 L 8-31; P 2 L 25-28; P 8 L 32 - P 9 L 4

5) Referring to pages 2 and 3 of the Office Action, the objection to the drawings has been addressed in the enclosed New Sheet bearing a new Fig. 3, schematically showing the software and control device of claim 19 (see new claim 30) and the vehicle of claim 20 (see new claim 31). Furthermore, the characteristic line and characteristic field of claim 13 (see new claim 23) are represented by the curves or lines showing the course or progression of the transmission ratios (of the motor rotational speed relative to the vehicle driving speed) in the automatic transmission according to the invention. Thus, the drawings now

show all claim features. Please withdraw the objection to the drawings.

6) Referring to pages 3 and 4 of the Office Action, the objection to the disclosure has been taken into account in the present amendment. The informalities pointed out by the Examiner have been corrected. Also the overall format has been adapted to US application requirements. Please withdraw the objection to the disclosure.

7) Referring to pages 4 and 5 of the Office Action, the rejection of claims 13 to 16 and 19 for failing to comply with the written description requirement under 35 USC 112(1) is respectfully traversed.

Regarding prior claim 13 (see new claim 23), the "characteristic line or characteristic field subject to further values" is understood by a person of ordinary skill in the art to refer to a characteristic line or characteristic field in a graphical representation defining the relationship between motor rotational speed and vehicle driving speed, according to respective transmission ratios. These characteristic lines or fields in a motor rotational speed versus vehicle driving speed diagram are dependent on further values, particularly for example the position of the accelerator pedal or the vehicle driving speed. For example see page 4 lines 22 to 27 of the specification.

Regarding prior claim 19 (see new claim 30), the applicant does not intend to claim a future invention, i.e. a future update

of the software, but rather is claiming that the control of the automatic transmission according to the invention can be carried out through the software control program, so that the present invention can be retrofitted or after-equipped into a prior existing conventional transmission simply by installing the software control program according to the invention to replace the previous control program of the prior conventional automatic transmission. In this regard, see the original specification at page 6 lines 6 to 12.

Therefore it is respectfully submitted that a person of ordinary skill in the art reading the original written description would have reasonably understood that the present inventors had possession of the claimed invention at the time the application was filed. Please withdraw the rejection under 35 USC 112(1).

8) Referring to pages 5 and 6 of the Office Action, the rejection of claims 1 to 4 and 13 to 20 as indefinite under 35 USC 112(2) has been taken into account when drafting the new claims, in comparison to the previous claims. All points raised by the Examiner have been addressed. It is respectfully submitted that the new claims 21 to 34 are all clear and definite in particularly pointing out and distinctly claiming the subject matter regarded as the invention. Please withdraw the rejection under 35 USC 112(2).

9) Referring to the middle of page 6 of the Office Action, the rejection of claim 19 for lack of utility under 35 USC 101 is

respectfully traversed in connection with new claim 30, which is based on prior claim 19. New claim 30 makes clear that the intended subject matter in this regard is that a control of a stepped motor revolution speed change is embodied in software in a control device. As a result, the inventive software-based control can be retrofitted as an upgrade into previously existing transmission controllers, merely by updating the previous software. The claim is not directed to an unknown future invention i.e. "an update". Thus, please withdraw the rejection under 35 USC 101.

10) Referring to pages 7 to 9 of the Office Action, the rejection of claims 1 to 4 and 13 to 20 as anticipated by US Patent 5,947,861 (Nobumoto) is respectfully traversed.

Claims 1 to 4 and 13 to 20 have been canceled. This rejection will be discussed in connection with the new claims 21 to 34, especially the three new independent claims 21, 32 and 34.

New independent claim 21 recites subject matter from prior claims 1 and 3, and especially further recites that in the acceleration mode, the transmission can effectuate a linear transmission ratio in which the motor revolution speed and the vehicle velocity are not directly proportional to one another. This refers to the transmission ratios represented by the line segments such as 15 and further unnumbered line segments following 17 in Fig. 2 of the present application. It can be seen that these line segments represent respective linear transmission ratio characteristics, with a linear relationship between the motor rotational speed (n) and the vehicle driving

speed (v), but the extended line of these line segments does not extend through the origin of the n-v graph. This means that the motor rotational speed is not directly proportional to the vehicle driving speed, as it would be for an actual physical stepped mechanical gear transmission. Instead, the linear transmission ratio characteristic can be represented by the line equation n = mv + b, wherein n is the motor rotational speed, v is the vehicle driving speed, m represents the slope or virtual transmission ratio of the linear transmission characteristic, and b represents the virtual motor rotational speed offset as a positive or negative offset value of the motor rotational speed if the vehicle driving speed would be zero in this linear transmission ratio characteristic. Such a "virtual" linear transmission ratio characteristic can only be achieved with a continuously variable transmission according to the invention, in which the motor rotational speed is not directly proportional to the vehicle driving speed despite the linear characteristic with a constant linear slope over the entire respective line segment.

The independent claims 32 and 34 similarly are directed to this special transmission ratio characteristic according to the invention as described above. Claim 32 defines a linear transmission ratio characteristic without direct proportionality between the motor rotational speed and the vehicle driving speed, and claim 34 defines the above mentioned linear equation n = mv + b, where n is the linear slope and b is the positive or negative virtual motor rotational speed offset for a vehicle

driving speed of zero. Thus, b represents the point at which the extended line of the linear transmission ratio characteristic would cross the vertical n axis. That cannot be achieved with a mechanical transmission with fixed gear steps and is not disclosed or suggested by the prior art

Nobumoto does not disclose (and would not have suggested) the present inventive automatic transmission with such a transmission ratio shifting characteristic. The drawing figures of Nobumoto all show the linear transmission ratio characteristics expressly extending through the origin of the graph of engine speed N versus vehicle speed V (see Figs. 5, 6, 7, 8 and 13). Thus, a person of ordinary skill in the art would understand that Nobumoto expressly and purposely provides transmission ratio steps that correspond to a real gear ratio with direct proportionality between the engine speed and the vehicle speed, i.e. the linear extension of the linear transmission ratio characteristic extending through the origin of an engine speed versus vehicle speed graph.

The written description of Nobumoto does not appear to explain anything about the direct proportionality or lack thereof. Particularly, there is nothing in the Nobumoto disclosure that would have given any motivation or suggestion to try to achieve a linear transmission ratio characteristic without direct proportionality between the engine speed and the vehicle speed.

Thus, the present independent claims are not anticipated by Nobumoto, and also would not have been obvious. The dependent claims are patentable already due to their dependence. The

Examiner is respectfully requested to withdraw the rejection applying Nobumoto.

11) The additional prior art made of record requires no particular comments, because it has not been applied against the claims.

12) Favorable reconsideration and allowance of the application, including all present claims 21 to 34, are respectfully requested.

Respectfully submitted,

WFF:he:ks/4954
Enclosures:
Transmittal Cover Sheet
Drawing Transmittal
1 New Sheet of Drawing
IDS, PTO-1449
2 references, 1 abstract
PTO-2038
postcard

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CERTIFICATE OF MAILING:

I hereby certify that this correspondence with all indicated enclosures is being deposited with the U. S. Postal Service with sufficient postage as first-class mail, in an envelope addressed to: COMMISSIONER FOR PATENTS, P.O. BOX 1450, ALEXANDRIA, VA 22313-1450 on the date indicated below.

Walter F. Fasse 11/24/08

Name: Walter F. Fasse - Date: November 24, 2008